

SARA 311-312 Hazard Classification(s):

immediate (acute) health hazard

US EPCRA (SARA Title III) Section 313 - Toxic Chemical List

METHANOL

OSHA: hazardous**TSCA (US Toxic Substances Control Act):** All components of this product are listed on the TSCA inventory. Any impurities present in this product are exempt from listing.**DSL (Canadian Domestic Substances List) and CEPA (Canadian Environmental Protection Act):** One or more components of this product are not listed on the DSL. In Canada, its use is restricted to research and development purposes only.**MITI (Japanese Handbook of Existing and New Chemical Substances):** One or more components or reactants of this product are not listed in the Handbook. In Japan, its use is restricted to research and development purposes only.**ECL (Korean Toxic Substances Control Act):** One or more components of this product are not listed on the Korean inventory. In Korea, its use is restricted to research and development purposes only.**SECTION 16: Other information****HMIS® Hazard Ratings:** Health - 2, Flammability - 1, Chemical Reactivity - 0

HMIS® rating involves data interpretations that may vary from company to company. They are intended only for rapid, general identification of the magnitude of the specific hazard. To deal adequately with the safe handling of this material, all the information contained in this MSDS must be considered.

Revision Information: Not relevant.**Key literature references and sources for data:** No data available.**Training information:** No data available.**Issue Date:** 08/18/2011**SDS No:****Disclaimer:** This information is provided without warranty. The information is believed to be correct. This information should be used to make an independent determination of the methods to safeguard workers and the environment.

1,4-cyclohexanedimethanol No data available.

12.3 Bioaccumulative potential

Product: No data available.

Specified substance(s)

4- No data available.

methylcyclohexanemethanol

4- No data available.

(methoxymethyl)cyclohexanemethanol

water No data available.

methyl 4- No data available.

methylcyclohexanecarboxylate

dimethyl 1,4- No data available.

cyclohexanedicarboxylate

methanol No data available.

1,4-cyclohexanedimethanol No data available.

12.4 Mobility in soil: No data available.

Known or predicted distribution to environmental compartments

4-methylcyclohexanemethanol No data available.

4- No data available.

(methoxymethyl)cyclohexanemethanol

water No data available.

methyl 4- No data available.

methylcyclohexanecarboxylate

dimethyl 1,4- No data available.

cyclohexanedicarboxylate

methanol No data available.

1,4-cyclohexanedimethanol 0.499 - 1.6 (QSAR model)

12.5 Results of PBT and vPvB assessment: No data available.

4-methylcyclohexanemethanol No data available.

4- No data available.

(methoxymethyl)cyclohexanemethanol

water No data available.

methyl 4- No data available.

methylcyclohexanecarboxylate

dimethyl 1,4- No data available.

cyclohexanedicarboxylate

methanol No data available.

1,4-cyclohexanedimethanol Not fulfilling PBT (persistent/bioaccumulative/toxic) criteria

Fish

Product: LC-50 (Fathead Minnow, 96 h): 57.4 mg/l
NOEC: (Fathead Minnow, 96 h): 25 mg/l

Aquatic invertebrates

Product: EC-50 (daphnid, 48 h): 98.1 mg/l
NOEC: (daphnid, 48 h): 40 mg/l

Chronic Toxicity**Fish**

Product: No data available.

Specified substance(s)

4-
methylcyclohexanemethanol No data available.
4-
(methoxymethyl)cyclohexan
emethanol No data available.
water No data available.
methyl 4-
methylcyclohexanecarboxyl
ate No data available.
dimethyl 1,4-
cyclohexanedicarboxylate No data available.
methanol No data available.
1,4-cyclohexanedimethanol No data available.

Aquatic invertebrates

Product: No data available.

Specified substance(s)

4-
methylcyclohexanemethanol No data available.
4-
(methoxymethyl)cyclohexan
emethanol No data available.
water No data available.
methyl 4-
methylcyclohexanecarboxyl
ate No data available.
dimethyl 1,4-
cyclohexanedicarboxylate No data available.
methanol No data available.
1,4-cyclohexanedimethanol No data available.

Toxicity to Aquatic Plants

Product: No data available.

Specified substance(s)

4-
methylcyclohexanemethanol No data available.
4-
(methoxymethyl)cyclohexan No data available.

methyl 4-methylcyclohexanecarboxylate	No data available.
dimethyl 1,4-cyclohexanedicarboxylate	No data available.
methanol	No data available.
1,4-cyclohexanedimethanol	No data available.

Carcinogenicity

Product: No data available.

Specified substance(s)

4-methylcyclohexanemethanol	No data available.
4-(methoxymethyl)cyclohexanemethanol	No data available.
water	No data available.
methyl 4-methylcyclohexanecarboxylate	No data available.
dimethyl 1,4-cyclohexanedicarboxylate	No data available.
methanol	No data available.
1,4-cyclohexanedimethanol	No data available.

Reproductive toxicity

Product: No data available.

Specified substance(s)

4-methylcyclohexanemethanol	No data available.
4-(methoxymethyl)cyclohexanemethanol	No data available.
water	No data available.
methyl 4-methylcyclohexanecarboxylate	No data available.
dimethyl 1,4-cyclohexanedicarboxylate	No data available.
methanol	No data available.
1,4-cyclohexanedimethanol	No data available.

Specific target organ toxicity - single exposure

Product: No data available.

Specified substance(s)

4-methylcyclohexanemethanol	No data available.
4-(methoxymethyl)cyclohexanemethanol	No data available.

- 10.5 Incompatible materials:** Strong oxidizing agents.
- 10.6 Hazardous decomposition products:** Carbon Dioxide. Carbon Monoxide.

SECTION 11: Toxicological information

Information on likely routes of exposure

- Inhalation:** At elevated temperatures, vapor may cause irritation of eyes and respiratory tract.
- Ingestion:** Harmful if swallowed.
- Skin contact:** Causes skin irritation.
- Eye contact:** Causes serious eye irritation.

11.1 Information on toxicological effects

Acute Toxicity

Oral

- Product:** Oral LD-50: (Rat): 825 mg/kg

Dermal

- Product:** Dermal LD-50: (Rat): > 2,000 mg/kg

Inhalation

- Product:** No data available.

Specified substance(s)

- 4-methylcyclohexanemethanol No data available.
- 4-(methoxymethyl)cyclohexanemethanol No data available.
- water No data available.
- methyl 4-methylcyclohexanecarboxylate No data available.
- dimethyl 1,4-cyclohexanedicarboxylate No data available.
- methanol No data available.
- 1,4-cyclohexanedimethanol LC50 (Rat, 6 h): > 3 mg/l (highest concentration tested)

Repeated dose toxicity

- Product:** No data available.

Specified substance(s)

- 4-methylcyclohexanemethanol No data available.
- 4- No data available.

SECTION 8: Exposure controls/personal protection**8.1 Control parameters****Occupational exposure limits**

If exposure limits have not been established, maintain airborne levels to an acceptable level.

Chemical name	Type	Exposure Limit values	Source
methanol	TWA	200 ppm	US. ACGIH Threshold Limit Values (01 2010)
	STEL	250 ppm	US. ACGIH Threshold Limit Values (01 2010)
	PEL	200 ppm 260 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)

Biological limit values

Chemical name	Exposure Limit values	Source
methanol (methanol: Sampling time: End of shift.)	15 mg/l (Urine)	ACGIH BEL (01 2010)

8.2 Exposure controls**Appropriate engineering controls:**

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Individual protection measures, such as personal protective equipment**General information:**

Eye bath. Safety shower. Washing facilities.

Eye/face protection:

Wear safety glasses with side shields (or goggles). Wear a full-face respirator, if needed.

Skin protection**Hand protection:**

Wear chemical-resistant gloves, footwear, and protective clothing appropriate for the risk of exposure. Contact health and safety professional or manufacturer for specific information.

Other:

No data available.

Respiratory Protection:

If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. In the United States of America, if respirators are used, a program should be instituted to assure compliance with OSHA Standard 63 FR 1152, January 8, 1998. Respirator type: Air-purifying respirator with an appropriate, government approved (where applicable), air-purifying filter, cartridge or canister. Contact health and safety professional or manufacturer for specific information.

water	4 - 10%	CAS-No.: 7732-18-5 EC No.: 231-791-2	
methyl 4-methylcyclohexanecarboxylate	5%	CAS-No.: 51181-40-9	
dimethyl 1,4-cyclohexanedicarboxylate	1%	CAS-No.: 94-60-0 EC No.: 202-347-5	
methanol	1%	CAS-No.: 67-56-1 EC No.: 200-659-6 INDEX No.: 603-001-00-X	#
1,4-cyclohexanedimethanol	1 - 2%	CAS-No.: 105-08-8 REACH Registration No.: 01-2119448337-34-0000 01-2119448337-34-0002	#

* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

This substance has workplace exposure limit(s).

PBT: persistent, bioaccumulative and toxic substance.

vPvB: very persistent and very bioaccumulative substance.

SECTION 4: First aid measures

4.1 Description of first aid measures

Inhalation: Treat symptomatically. Move to fresh air. Get medical attention if symptoms persist.

Eye contact: Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Get medical attention. In case of irritation from airborne exposure, move to fresh air. Get medical attention if symptoms persist.

Skin contact: Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention immediately. Wash contaminated clothing before reuse. Destroy or thoroughly clean contaminated shoes.

Ingestion: Call a physician or poison control center immediately. Only induce vomiting at the instruction of medical personnel. Never give anything by mouth to an unconscious person. Not relevant, due to the form of the product.

4.2 Most important symptoms and effects, both acute and delayed: No data available.

4.3 Indication of any immediate medical attention and special treatment needed

Hazards: No data available.

Treatment: Treat symptomatically.

SECTION 5: Firefighting measures

General fire hazards: None known.